



ALAMEDA COUNTY  
CONGESTION MANAGEMENT AGENCY

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1333 BROADWAY, SUITE 220 • OAKLAND, CA 94612 • PHONE: (510) 836-2560 • FAX: (510) 836-2185  
E-MAIL: mail@accma.ca.gov • WEB SITE: accma.ca.gov

**Memorandum**

*June 8, 2009  
Agenda Item 7.2*

**Date:** May 30, 2009  
**To:** Sunol Express Lane Joint Powers Authority  
**From:** Ray Akkawi, Manager of Project Delivery  
**Subject:** I-680 Express Lane Project: Enforcement Transponder Technology - Update

FasTrak Transponders currently in use in California, which are Title 21 compliant, work reasonably well for electronic toll applications for toll bridges, toll roads and can work well for Express Lanes involving dynamic pricing. However, the existing transponders have limitations if the pricing depends on the number of occupants as well as if the proposal to require High Occupancy Vehicles to pay a toll and carry transponders in late 2010 is implemented.

A concept of operations report submitted to the Management and Operations Committee on May 19, 2009 recommended the adoption of a new protocol for switchable transponders that are Title 21 compliant. These transponders will address both tiered pricing needs and enforcement. While these transponders are not in use anywhere else in the nation, LA Metro has developed the requirements for the use of such transponders for their Express Lanes. BATA was tasked with developing the specifications of these transponders, to develop and perform the proper beta testing, and develop the necessary changes to comply with Title 21 changes.

Should BATA and M&OC approve the switchable transponders for use on Bay Area Toll Bridges and Express Lanes, new readers at the I-680 Express Lane toll zones will be needed. Switchable transponders along with new readers are being developed and a potential for factory testing for the new transponders by the I-680 Express Lane System Integrator may take place this fall. Should the new reader be available for use before the opening of the I-680 Express Lane, then the switch to the new readers could take place before the opening of the facility. Otherwise, the switch will take place when the new transponders and readers become available.

